

## Building Blind Control based on Wind Speed

User variables in this application can be trimmed with the AM702-02

### Operating Description

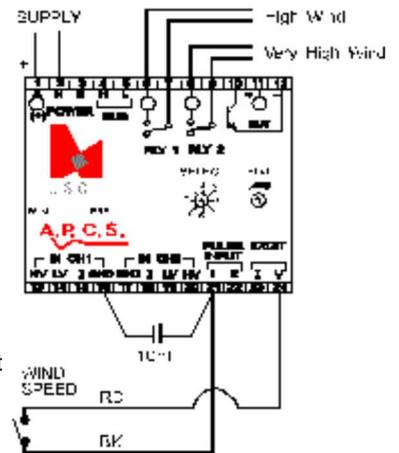
The USC is programmed to produce two alarm relays that will trigger the operation of motors on a external blind system. The high wind alarm will change the angle of the blind. The very high alarm will close the blind.

### High Wind Alarm

RLY1 will switch ON when the wind speed is above the high trip (6.5 m/s) and will remain on for the on time of 1.5 s (0.5 sec and above adjustable). After the relay has been on for the on time it will not operate regardless of the input signal condition for the duration of the inhibit time of 20 minutes (0.5 sec to 945 hours).

### Very High Wind Alarm

RLY2 will switch ON when the wind speed is above the high trip (15 m/s). When the wind speed reduces below the lower trip (14.5 m/s) for a period longer than the off delay (adjustable from 100mS to 2330 S = 38 minutes) RLY2 will switch off.



### Changing Calibration and Alarm Points

#### Wind Speed Detector

P1 is used to measure a frequency from a mast head sensor and converts the frequency to m/s. Default calibration is; 27.7Hz = 27.7 m/s The calibration can be changed with a lap top computer using the standard wizard.

#### High Wind Alarm

The function of RLY1 is achieved using the special function calculator. Changes can only be done using a lap top computer. By changing the values of some of the constants within the equation the timing and trip levels can be changed.

### Declarations

USC Component	Eng. Unit/Label	Description
Const_a	Hwnd m/s	Switch on level in m/s (6.5 default) = 6.5 m/s
Const_b	OnT0.5s	Const_b=OnTimex2 (3 default) = 1.5 Seconds
Const_c	Inhb0.5s	Const_c=InhibitTimex2 (2400 default) = 1200 Seconds = 20 minutes
Const_d	CountFlag	Counter and flag value -1
Mem4	OnTimCnt	On time counter
-1 = Measure P1 level to start trip > 0 = Counting down on time, RLY1 = On 0 = Inhibit timer is running, RLY1 = Off		
Mem5	InhTimCt	Inhibit counter
-1 = Measure P1 level to start trip > 0 = Counting down inhibit time 0 = Reset = Mem4 = -1, Mem5 = -1, RLY1 = Off		
P1	m/s	Wind speed input
P2		Reset RLY1 and timers(optional)

### Very High Wind Alarm

RLY2 upper trip (15m/s), lower trip(14.5m/s), on delay(1s) off delay(1200s = 20min) and action(direct) can be changed with a lap top computer running using the standard wizard.

### USC Programs

File	Comment
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First Issue

UAP00141.usc



Second Issue.

UAP00142.usc



Convert to USC config 105 standard.

UAP00143.usc

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